

## CLAIMS

1. An analog device which demonstrates qualitative relationships between human diet, exercise and weight, said device comprising an energy flow passing through a suitable conduit as a means to power said device, said energy flow being conducted in series through a variable diet-energy restrictor as a means to simulate changes in diet, a diet-energy rate meter as a means to display said changes in diet, an exercise-energy rate meter as a means to display changes in exercise, an exercise-energy restrictor as a means to simulate changes in said exercise-energy, an energy magnitude meter connected to measure energy magnitude between said diet-energy flow meter and said exercise-energy flow meter as a means to display simulated weight resulting from changes to said diet-energy and or said exercise-energy.

2 The analog of claim 1, wherein said energy flow is a pressurized liquid flowing through tubes as a means to power said analog, said variable diet-energy restrictor being a throttle valve as a means to simulate changes in said diet-energy, said diet-energy rate meter being a liquid flow meter as a means to display said diet-energy flow rate, said exercise-energy rate meter being a liquid flow meter as a means to display exercise-energy rate, said exercise-energy restrictor being a throttle valve as a means to simulate changes in said exercise-energy, an energy magnitude meter being a pressure measuring device connected between said diet flow meter and said exercise flow meter as a means to display simulated weight resulting from changes in said diet and said exercise.

3 The analog of claim 2 wherein a fish-tank type electrically driven pump is a means for providing said flowing pressurized liquid to power said analog, said pump being liquid-submerged in a tank used as a means for recycling said liquid, said tank having a screw-closable top as a means to seal said tank, said pump being attached to said top with said pump's liquid outlet and electrical supply sealed through said top as a means to

mount said pump, said pump's outlet being connected to a combined elbow and screw-type vent as a means to release air possibly trapped in said pump, said elbow being connected to a tube as a means to connect said pump to a diet throttle valve, all said tubes being flexible, clear plastic tubing, said tubing being a means to connect said elbow to said diet valve, said diet valve being a needle valve as a means to facilitate small liquid flow changes, said valve being tubing connected to a diet flow meter as a means to show diet-energy flow, said diet flow meter being a transparent tapered-tube-and-float type with scale, said diet flow meter being tubing-connected to a T before connecting to an exercise flow meter as a means to display said exercise-energy flow rate, said exercise flow meter matching said diet flow meter, said T branching to a vertical tube acting as a manometer as a means to measure pressure indicated as weight, said manometer being of a height to accommodate pressure generated by said pump, a vertical support mounted on a base as a means to support said manometer, said vertical support embodying a groove over its full length, said groove having a depth and a width equal to said vertical tube's diameter as a means to totally recess said tube in said vertical support, said base embodying an edge-mounted eye on each side as a means for latching a carrying case to said base, said exercise flow meter being connected to an exercise valve as a means to change exercise-energy flow, said exercise valve being connected to a return tube as a means to re-cycle said liquid, said return tube being inserted in a hole in said closable tank top as a means to return liquid to said tank, said hole in said top having larger diameter than said tube as a means to vent said tank when said analog is being demonstrated, said vertical support also carrying a cross member, said cross member acting as a means to support said flow meters and said valves, said cross member also carrying a removable sign DIET and a removable sign EXERCISE as means to identify said diet flow meter and said exercise flow meter to an audience, said vertical support carrying a

removable sign WEI and a removable sign GHT as means to identify said manometer indication as weight to an audience.

4        Said analog device of claim 3 wherein said vertical support is cut and hinged at two points so that said vertical support and said vertical tube can be folded as means to simplify transporting said device, said groove in said vertical support being cut through said support above and below each said hinge point as a means to allow folding said vertical tube without crimping said tube, said twice-cut vertical support embodying a hook-and-eye across each hinge as a means to hold said support in a vertical position during demonstrations, each said hook being provided with a second eye positioned as a means to hold said support in a folded position while said device is being transported.

5        Said analog device of claim 4 wherein a carrying case embodying latches and a handle is placed over said folded analog device, said latches being connected to their mating said eyes on said base, said carrying case providing a means for transporting said analog device.